

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1. (Currently Amended) A bandwidth monitoring method suitable for use in a network, comprising the steps of:

transmitting a specific type of packets in preference to packets other than the specific type of packets;

judging whether an inputted packet corresponds to the specific type of packets according to a value in a header of the packet;

monitoring whether the specific type of packets violate a contract bandwidth under contract with a source of the specific type of packets; and

when the packets of the specific type do not violate the contract bandwidth and the value in the header of the inputted packet does not belong to correspond to a specific value indicative of the specific type of packets, transmitting the inputted packet as if it belonged to the specific type after converting the packet to a packet having the specific value in its header.

2-3. (Canceled)

4. (Currently Amended) The bandwidth monitoring method according to claim 21, wherein said header has a priority field and said judging as to whether the packets correspond to the specific type of packets is performed according to the value in the priority field.

5. (Currently Amended) The bandwidth monitoring method according to claim 1, wherein said monitoring is carried out by using a leaky bucket algorithm with a first depth of bucket when the packet is does not correspond to the specific type of packets, and a leaky bucket algorithm with a second depth of bucket different from the first depth when the packet corresponds to the specific type of packets, thereby to judge whether or not said packet violates the contract bandwidth being under contract with the source of the packet.

6. (Currently Amended) A bandwidth monitoring method for use in a network, comprising the steps of:

transmitting a specific type of packets in preference to packets other than the specific type of packets;

determining whether an inputted packet corresponds to the specific type of packets according to a value in a header of the packet;

monitoring whether the specific type of packets violate a contract bandwidth under a contract with a source of the specific type of packets; and

transmitting the inputted packet ~~as a packet of the specific type~~, when a bandwidth being used by the source of the packet of the specific type is less than or equal to a first bandwidth smaller than the contract bandwidth and the value in the header of the inputted packet does not correspond to a specific value indicative of the specific type of packets, after converting the packet to a packet having the specific value in its header.

7. (Currently Amended) The bandwidth monitoring method according to claim 6, further comprising the step of:

transmitting the packet as a packet other than the specific type of packets when the bandwidth being used by the source of the packet exceeds the first bandwidth and the packet does not correspond to the specific type of packets.

8. (Currently Amended) The bandwidth monitoring method according to claim 6, further comprising the step of:

transmitting the packet as a packet other than the specific type of packets when the bandwidth being used by the source of the packet exceeds the contract bandwidth and the packet corresponds to the specific type of packets.

9. (Currently Amended) The bandwidth monitoring method according to claim 6, wherein said monitoring method is carried out by using a leaky bucket algorithm

with a first depth of bucket when the packet ~~is~~does not correspond to the specific type of packets, and a leaky bucket algorithm with a second depth of bucket when the packet corresponds to the specific type of packets, said first depth being different from said first depth, thereby to judge whether or not said packet violates the contract bandwidth being under contract with the source of the packet.

10-20. (Canceled)

21. (New) A bandwidth monitoring method suitable for use in a network, comprising the steps of:

judging whether an inputted packet is one of specific type of packets to be transmitted in preference to packets having a type other than the specific type, according to a value in a header of the inputted packet;

monitoring whether the specific type of packets violate a contract bandwidth under a contract with a source of the specific type of packets; and

when the packets of the specific type do not violate the contract bandwidth and the value in the header of the inputted packet does not correspond to a specific value indicative of the specific type of packets, providing the specific value to the inputted packet and transmitting the inputted packet with the specific value in its header.